



DS-4101HDI

High Definition Decoder Card User Manual V1.0

2009-11

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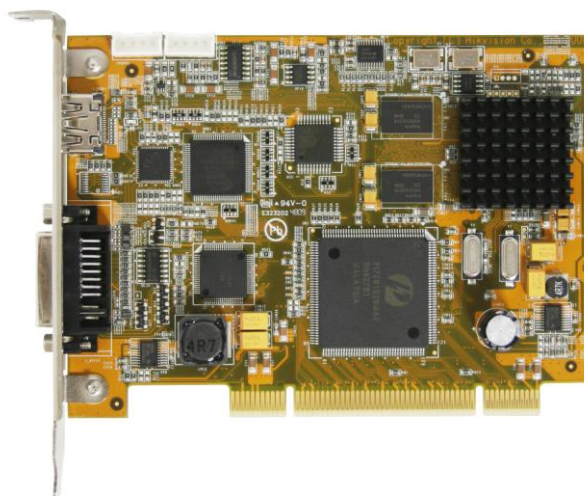
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1 Product Description

1.1 Product Description

HIKVISION's DS-4101HDI is a high definition decoding card which is specially designed for digital surveillance. It supports high definition video decoding in various stream packet formats and encoding standards, and is also with various kinds of output interfaces, and meets different requirements of surveillance applications consequently.



1.2 Main Features

- Support decoding of multiple stream packet format
- Support decoding of multiple video standards
- Support decoding of multiple audio standards
- Support various output resolution
- Support various audio & video output modes
- Support query of the output interface's supported resolution

1.3 Reserved Functions

- Video matrix output
- Snapshot during decoding
- Raw data capturing of the decoded video

1.4 Order Model

DS-4101HDI

- 1 output interface
- 4-ch decoding
- 1-ch decoding under 1080P/ 1080I/ UXGA/ XVGA resolution
- 2-ch decoding under 720P resolution
- 3-ch decoding under SVGA resolution
- 4-ch decoding under 4CIF/ VGA/ DCIF/ 2CIF/ CIF/ QCIF/ QVGA resolution

2 Function Description

2.1 Decoding

➤ **Support multiple stream packet format**

1. Hikvision packet format
2. PS packet format
3. RTP packet format

➤ **Support multiple encoding standard**

1. H.264
2. MPEG-4

➤ **Support multiple audio encoding standard**

1. OggVorbis
2. MPEG1 Layer2
3. MPEG2 Layer2

➤ **Support various input resolution**

1. 1080P/ 1080I, resolution: 1920*1080
2. UXGA, resolution: 1600*1200
3. 720P, resolution: 1280*720
4. SXGA, resolution: 1280*1024, 1280*960
5. VGA/ QVGA
6. 4CIF/ DCIF/ 2CIF/ CIF/ QCIF
7. 160×120 pixels / 160×128 pixels

2.2 Output

➤ Support various output resolution

HDMI/ DVI Output

1. XGA, 1024*768 @ 60Hz
2. SXGA, 1280*1024 @ 60Hz
3. SXGA_960, 1280*960 @ 60Hz
4. 720P-50HZ, 1280*720 @ 50Hz Progressive
5. 720P-60HZ , 1280*720 @ 60Hz Progressive
6. 1080I-50HZ, 1920*1080 @ 50Hz Interlace
7. 1080I-60HZ, 1920*1080 @ 60Hz Interlace
8. 1080P-24HZ, 1920*1080 @ 24Hz Progressive
9. 1080P-25HZ, 1920*1080 @ 25Hz Progressive
10. 1080P-30HZ, 1920*1080 @ 30Hz Progressive

VGA Output

1. XGA, 1024*768 @ 60Hz
2. SXGA, 1280*1024 @ 60Hz
3. SXGA_960, 1280*960 @ 60Hz
4. 720P-60HZ , 1280*720 @ 60Hz Progressive

YPbPr Output

1. 720P-60HZ , 1280*720 @ 60Hz Progressive
2. 1080I-60HZ, 1920*1080 @ 60Hz Interlace

BNC Output

1. 4CIF, 704*576(PAL)/ 704*480(NTSC)

➤ Support multiple audio & video output mode

1. DVI/VGA: multiplexing interface. Users can use either of these 2 output modes for video output only.
2. HDMI: for video output only
3. BNC: support CVBS and analog audio output
4. YPbPr: support up to 1080I output

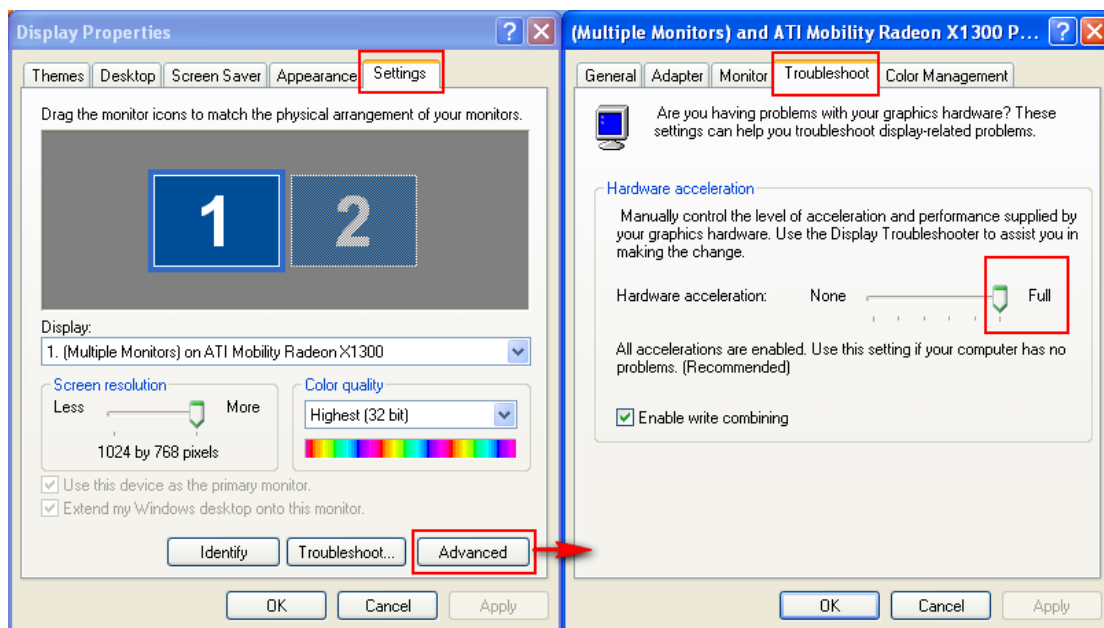
3 Recommendation of Software/Hardware Configuration

3.1. Operating System

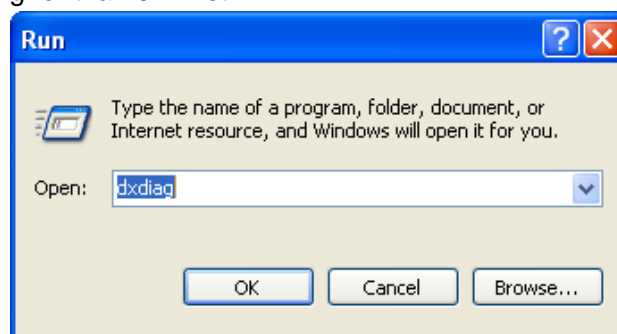
The card can be installed under Windows 2000/XP/2003/Vista/Win7/ Linux OS (with DirectX version 8.1 or above for Windows OS).

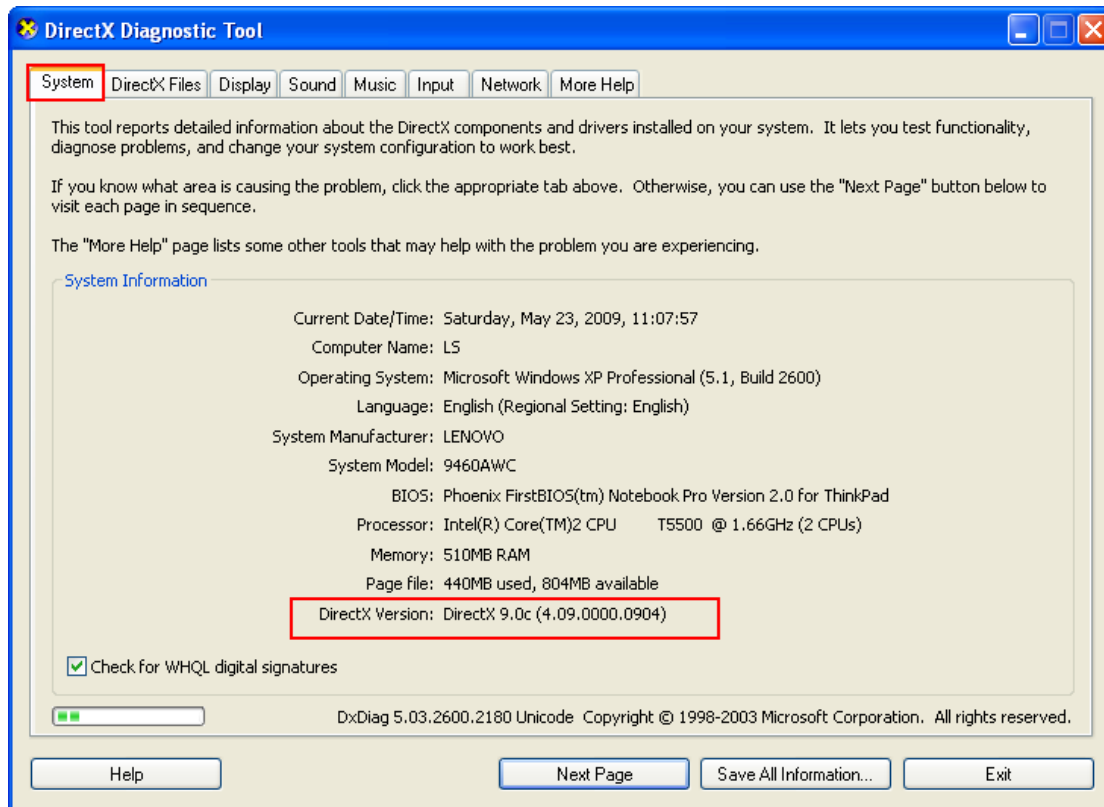
As the DirectDraw options are not enabled under Windows 2003 Operating System by default, please kindly follow the operation steps below to get normal live view effects:

1. Right click on Windows Desktop-> Select "Properties" ->Settings-> Advanced-> Troubleshoot->and drag "Hardware Acceleration" to "Full".

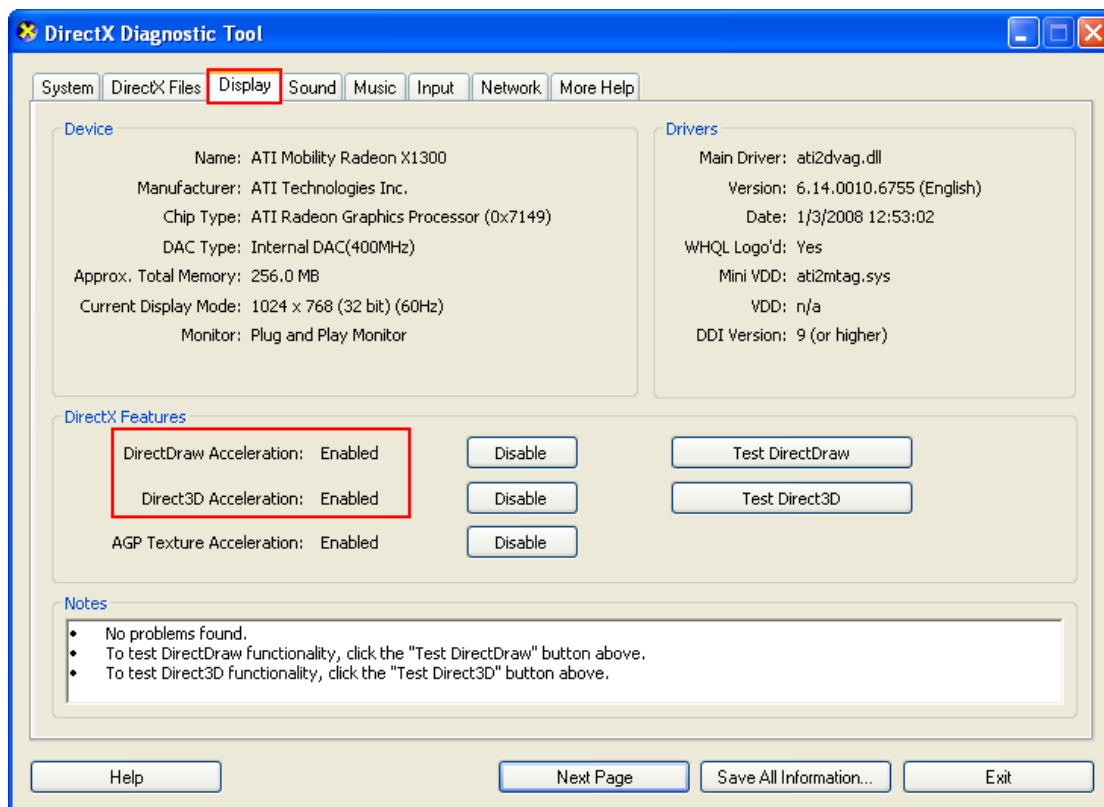


2. Click "Start"-> "Run" of Windows task bar, input "dxdiag" and enter DirectX diagnosing program. Please check if DirectX version is above 8.1. If yes, please kindly refer to step 3; if not, please upgrade it to version higher than 8.1 first.





3. Enable "DirectDraw" and "Direct3D" options in the "Display" column.



3.2. CPU and Motherboard

It is suggested to use motherboard with Intel P3, C4, P4, Core2 or Core4 CPU.

Also it is suggested that users use motherboard from reliable manufactures such as Intel, Asus, Gigabyte and Microstar, etc for stability consideration.

3.3. System Memory

Suggested 1G or more

3.4. Display Adapter

For high resolution live view/ playback function of the card, it is suggested to use a high performance display adapter. Please kindly refer to the list below for tested models of compatible display adapters. Please notice that the driver of these display adapters must support BLT function.

ATI Radeon X1650/X1600 /X1550/X1300/X800/X600/X550/HD2400/HD2600

ATI Radeon 7000/7200/7500/8500 /9000/9200 /9500/9600

NVIDIA GeForce 8600GT/8500GT/8400GS/7600/7300LE/6600LE/6200LE

Nvidia Tnt/Tnt2, Geforce Mx 200/400/420/440 Fx5200/5600

INTEL845G/865G/ 915/945G/G31 integrated display unit

Matrox G450/550

3.5. Power Supply

400W or above

4 Technical Specification

DS-4101HDI		
Video Parameters	Supported Video Encoding Standard	H.264/ MPEG4
	Video Output	1-ch CVBS Output, BNC interface (1.0Vp-p, 75Ω) 1-ch HDMI Output 1-ch DVI/VGA Multiplexing Output 1-ch YPbPr Output
	Video Standard	PAL/ NTSC
	Resolution	1-ch 1080P/ 1080I/ UXGA/ XVGA, or 2-ch 720P, or 3-ch SVGA, or 4-ch 4CIF/ VGA
	Frame Rate (FPS)	25(PAL), 30(NTSC)
Audio Parameters	Supported Audio Encoding Standard	OggVorbis
	Audio Output	1-ch BNC (Linear level, 600Ω)
General	PCI Standard	PCI2.2
	Dimension (mm)	133*102
	Power Consumption	<9.5w